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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/501,398 | 07/15/2004 | Tadao Nakaya | NFA-0205 | 2779 |

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EXAMINER

HABTE, KAHSAY

ART UNIT PAPER NUMBER

1624

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---|--------------------------------------|--|
| Office Action Summary | Application No. 10/501,398 | Applicant(s) NAKAYA ET AL. | |
| | Examiner Kahsay Habte, Ph. D. | Art Unit 1624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) 1-5, 7 and 11-27 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 6 and 8-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/12/04 & 7/15/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-27 are pending in this application.

Election/Restriction

2. Applicant's election without traverse of Group III (tetracyclic 1,4-thiazine compounds), Claims 6 and 8-10 (05/04/2005) is acknowledged. Claims 1-5, 7 and 11-27 are withdrawn from prosecution. Note that the new claims 18-27 are drawn to Group IV.

Information Disclosure Statement

3. Applicant's Information Disclosure Statements, filed on 10/12/2004 and on 7/15/2004 have been acknowledged. Please refer to Applicant's copies of the 1449 submitted herewith.

Specification

4. The disclosure is objected to because of the following informalities: at page 29 or elsewhere in the specification the term "1-naphphol" is misspelled. According to the chemical reaction (step c) at page 29, 1-naphthol reacts with 4-nitroaniline. Thus, applicants have to correct the misspelled term to "1-naphthol".

Appropriate correction is required.

Claim Objections

5. Claim 8 is objected to because of the following informalities: the term "1-naphhol" is misspelled (see above). It should read as "1-naphthol".
6. Claim 9 is objected to because of the recitation "Ar is the same as that defined in the claim 3". Claim 9 is an independent claim, thus, the definition of Ar should be recited in claim 9 as it was done in claim 10.
7. Claims 6, 9 and 10 are objected to because of the presence of dots on the right hand side of the chemical structures i.e. "... (10)", "... (11)", ".... (4)", ".... (5)", ".... (6)" and ".... (7)". Applicants have to remove these dots to overcome this objection.

Appropriate correction is required.

Allowable Subject Matter

8. Claims 8 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
9. Claim 9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by Mann et al. (Journal f. Prakt. Chemie., 1981, Vol. 323, No. 5, pages 785-792). Cited reference discloses a compound of interest: 9-(diethylamino)-5H-Benzo[a]phenothiazine-5-one at page 788 (see Table 1, compound 1). Said compound of interest is the same as applicants when applicant's formula (10) has the following substituents:



The examiner has attached an English translation of said reference for applicant's convenience.

Since said compound is the same as applicants, the 102(b) rejection is proper.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1624

Claims 6 and 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

a. In claim 6 (at page 7), the phrase "formula (1)" lacks antecedent basis. Said phrase is recited in 4 places at page 7 (line 3, line 7, lines 9-10 and line 11). What is the chemical structure of formula (1)? There is no mention of formula (1) in claim 6. Do applicants intend formula (10)? If so, applicants have to amend said phrase from "formula (1)" to "formula (10)" to overcome the rejection.

Likewise, the same problem appears in claim 9. Applicants have also to fix the problem in claim 9.

b. In claim 10, the phrase "formula (10)" lacks antecedent basis. Claim 10 depends from claim 9, but there is no mention of "formula (10)" back in claim 9. What is the chemical structure of "formula (10)"? There is "formula 10" in claim 6, but claims 9 or 10 do not depend from claim 6.


Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kahsay Habte, Ph. D. whose telephone number is (571) 272-0667. The examiner can normally be reached on M-F (9.00AM- 5:30PM).

Art Unit: 1624

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Wilson (Acting SPE) can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kansay Hapte, Ph. D.
Patent Examiner
Art Unit 1624

KH
May 31, 2005